First Baptist Church of Nephi

Nephi, UT

Technical Certifications

As shown below, the proposed facility meets the applicable engineering standards and assignment requirements of 47 CFR §73.203, §73.207, §73.213, §73.215, §73.509, and §73.515.

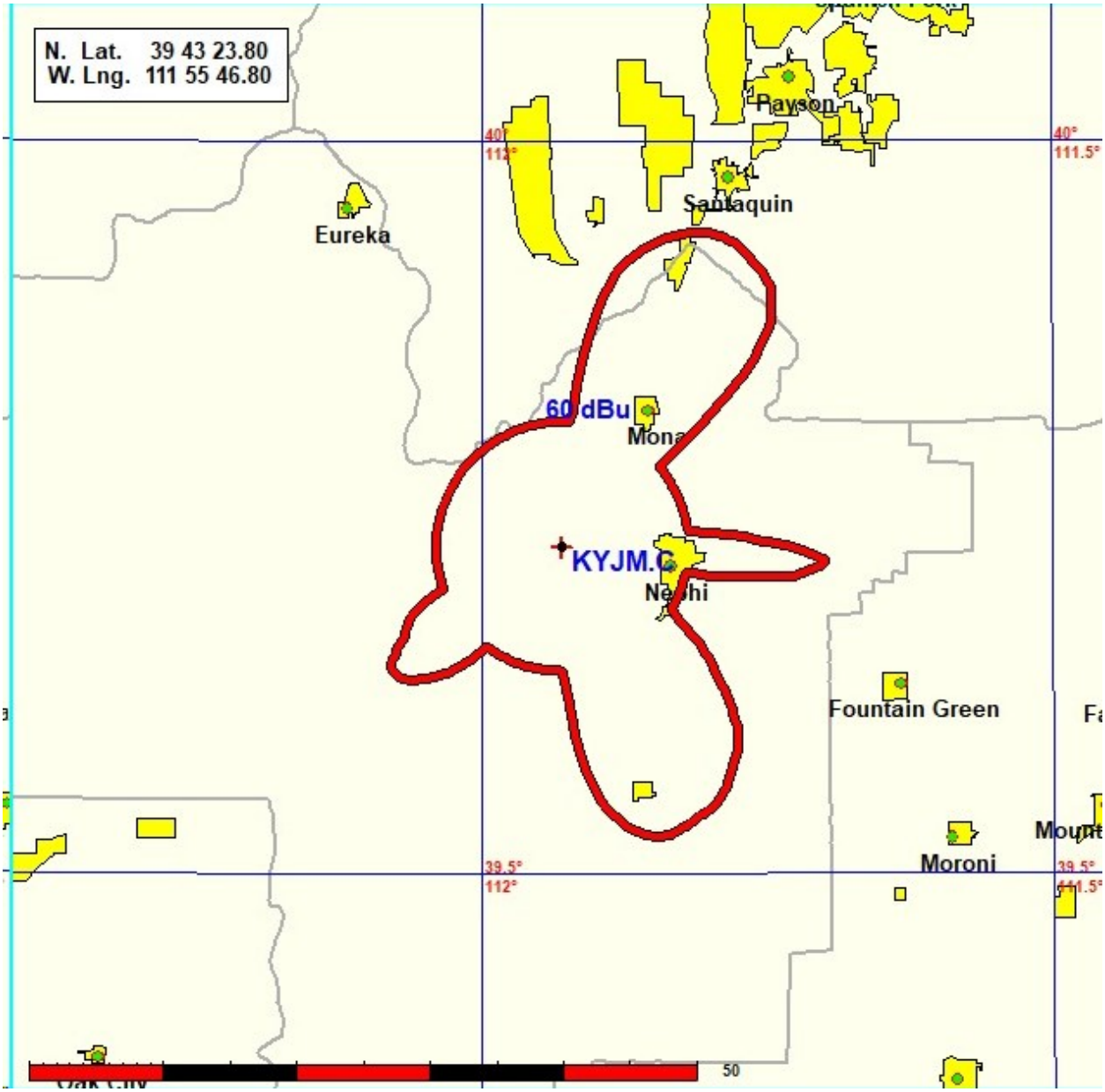
First Baptist Church Of Nephi

REFERENCE — CH# 208A - 89.5 MHz, Pwr= 0.75 kW, HAAT= 17.7 M, COR= 1765 M — DISPLAY DATES
39 43 23.80 N. — Average Protected F(50-50)= 9.45 km — DATA 01-17-23
111 55 46.80 W. — Omni-directional — SEARCH 01-17-23

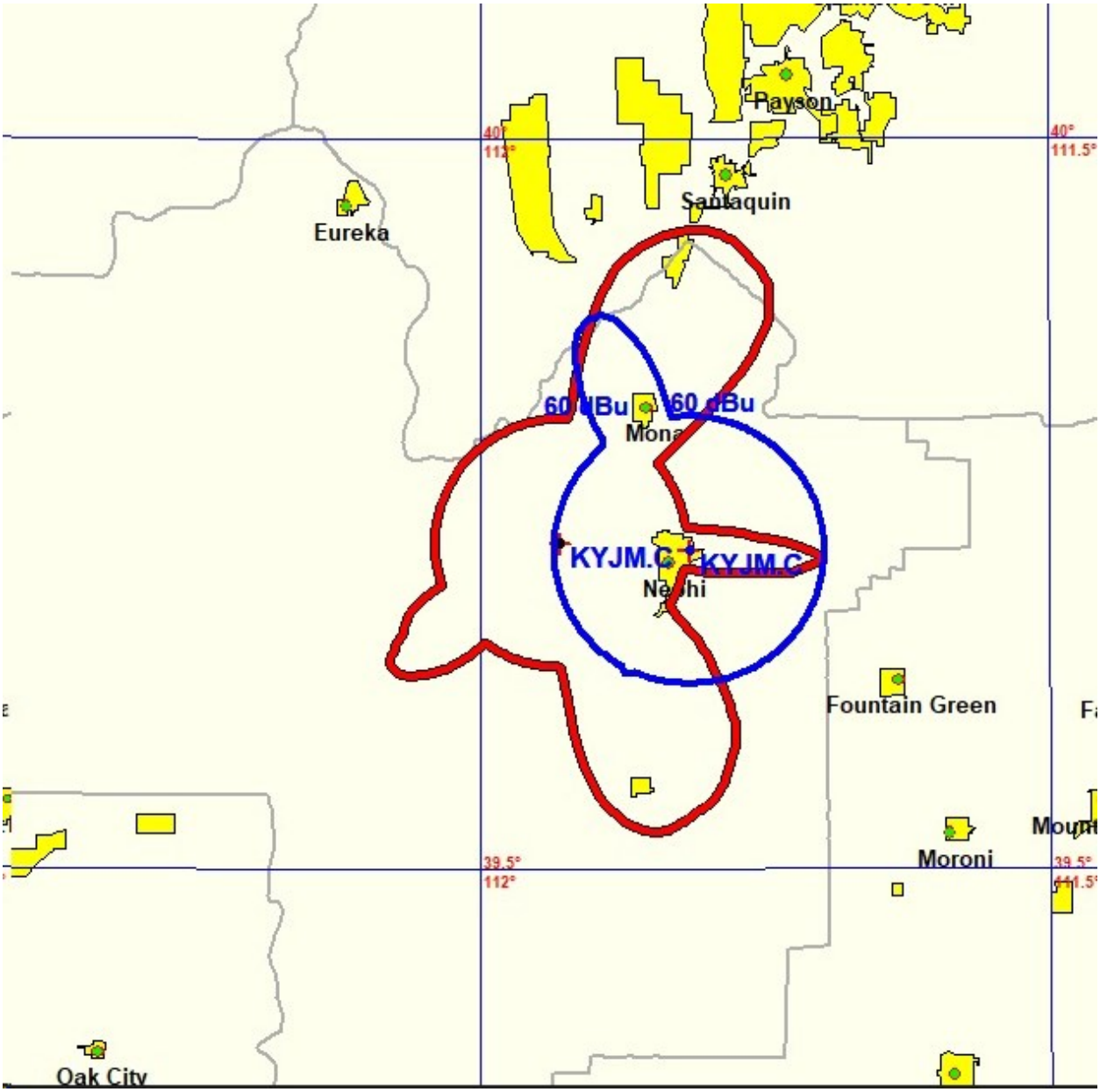
CH	CALL	TYPE	ANT	AZI	DIST	LAT	PWR(kW)	INT(km)	PRO(km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
208A	KYJM	CP	_CN	93.1	9.62	39 43 07.00	1.000		---Reference---		
Nephi		UT		273.1	0000167383	111 49 02.00	-302	1619	First Baptist Church Of Ne		
208D	~~K208BZ~~	LIC	DVN	12.7	41.70	40 05 20.80	0.250	53.5	14.9	-34.3*	-43.6*
Spanish Fork		UT		192.8	BLFT20080513ABB	111 49 17.70	644	2074	Brigham Young University		
208D	~~K208AJ~~	LIC	DVN	220.9	54.19	39 21 14.80	0.009	26.4	6.1	12.5	-7.6
Delta		UT		40.6	BLFT20000703AEL	112 20 32.70	596	2009	Utah State University Of A		
209D	~~K209FP~~	LIC	_VN	143.7	51.03	39 21 10.80	0.250	10.1	7.1	18.4	11.4
Ephraim		UT		323.9	BLFT20120221ACT	111 34 40.60	-361	1722	CSN International		
209A	762616	CP	_CN	204.1	83.67	39 02 08.80	3.800	52.7	34.0	17.1	31.5
Fillmore		UT		23.9	0000166315	112 19 32.80	93	1746	University Of Utah		
205C3	KAGJ	LIC	_CN	162.9	46.69	39 19 17.80	0.380	1.4	27.3	22.0	17.3
Ephraim		UT		343.1	BLED20110819AAJ	111 46 13.70	708	2602	Snow College		
206C	KBYU-FM	LIC	_CN	348.8	100.25	40 36 27.80	32.000	9.8	79.3	69.8	18.3
Provo		UT		168.7	BLED19920706KB	112 09 35.70	907	2618	Brigham Young University		
211C	KUER-FM	LIC	_CN	347.6	106.64	40 39 34.80	21.000	8.0	70.3	78.4	31.7
Salt Lake City		UT		167.4	BLED20121009ADB	112 12 07.80	1244	2832	University Of Utah		
207C1	KUSL	LIC	_CN	193.3	152.75	38 23 07.90	2.000	100.2	65.0	33.2	68.4
Richfield		UT		13.1	BLED20101210ALL	112 19 59.70	973	3577	Utah State University Of A		
208D	~~K208AG~~	LIC	DVN	17.8	112.13	40 40 58.80	0.009	7.2	2.3	78.8	33.9
Park City		UT		198.0	BLFT19970804TG	111 31 24.70	3	2279	University Of Utah		

Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= - Zone 2, Co to 3rd adjacent.
All separation margins (if shown) include rounding. Call signs with strikeout need not be protected.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
« = Station meets FCC minimum distance spacing for its class.

The map below demonstrates community coverage requirements for the city of license, fulfilling the requirement of 47 CFR §73.515, NCE FM transmitter location.



The map below demonstrates community coverage requirements for the city of license (in red), fulfilling the requirement of 47 CFR §73.515, NCE FM transmitter location. Note that this proposed modification provides full coverage to the city of license, while the permitted facility only provides service to just over 50% of the population. In addition, the 60 dBμ contour of the original facility is shown in blue, demonstrating that the proposed amended facility meets the requirements of a minor change as required by 47 CFR § 73.3573.



Environmental Effect

The proposed facility is excluded from environmental processing under 47 CFR §1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments).

The proposed site is not in an officially designated wilderness area, wildlife preserve, flood plain, or near a site that is either listed or eligible for listing in the National Register of Historic Places. The proposed construction will not adversely affect any listed or proposed threatened or endangered species or their critical habitats, or any sites significant to Native American Religious practice, and will not involve any significant change in surface features. The applicant does not propose to light the antenna support structure with high intensity white lighting.

The proposed facility is located on an existing tower, which is on restricted, fenced private property that restricts access by the general public. The tower is a 9m self-supporting tower with a two-bay circularly polarized antenna mounted at a center of radiation ("COR") of 8m on the tower.

Also on the tower is on-channel booster KLGL-FM1 (Nephi, UT, Facility ID 191042), K251BV (Nephi, UT, Facility ID 140453), and K269GH (Nephi, UT, Facility ID 140501).

Shown below is the output of the Commission's FM Model program for the proposed facility. Also included are outputs from the FM Model program for K251BV and K269GH. KLGL-FM1 uses a Katherin-Scala CL-FM Log-Periodic antenna operated with vertical polarization. Since this antenna is not included in the available options in FM Model, it was modelled using the manufacturer's elevation pattern for the main lobe azimuth, and the results of these calculations are also shown below.

The results for these four stations are:

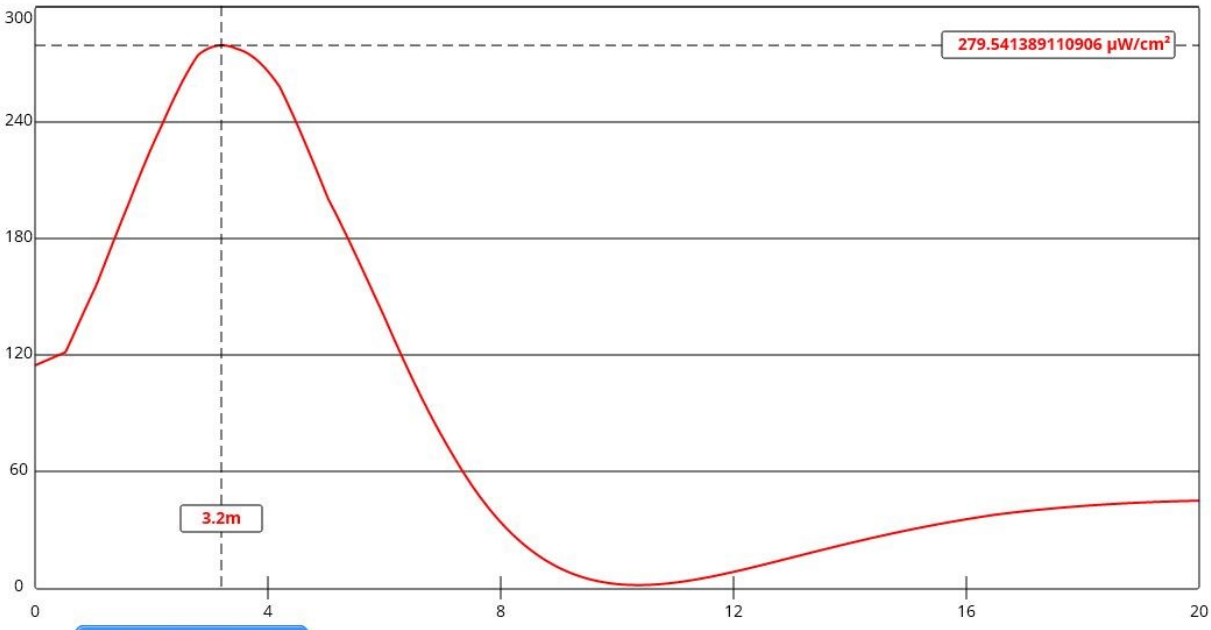
Facility	**Maximum RFR (2m AGL)**	**Distance for Maxima**
Proposed Facility	279.5 μW/cm^2	3.2m
KLGL-FM1	33.5 μW/cm^2	8.0m
K251BV	36.6 μW/cm^2	2.0m
K269GH	36.3 μW/cm^2	2.0m

Adding all these together, the maximum exposure would be 385.9 μW/cm2, above the general population limit of 200 μW/cm^2 yet well below the occupational limit of 1000 μW/cm^2. Site access is restricted to only personnel that are aware of the radiofrequency radiation hazards which are under the occupational limit. Maximum exposure falls below the general population limit at less than 6m from the base of the tower.

The applicant is cognizant of its responsibility to protect those workers whose duties require that they be in the vicinity of the antenna from exposure to radio frequency fields in excess of those outlined above. To that end, signage will be attached to the base of the antenna support structure warning all workers of the potential for harmful exposure and directing them to contact the responsible person at the broadcast station. That person will ascertain whether the worker will be in areas where there is an exposure hazard, and if so, arrange to shut down the transmitter(s).

The permittee/licensee will also coordinate with other users of the site to reduce power or cease operation in order to protect persons having access to the site, tower or antenna from radiofrequency radiation in excess of Commission guidelines.

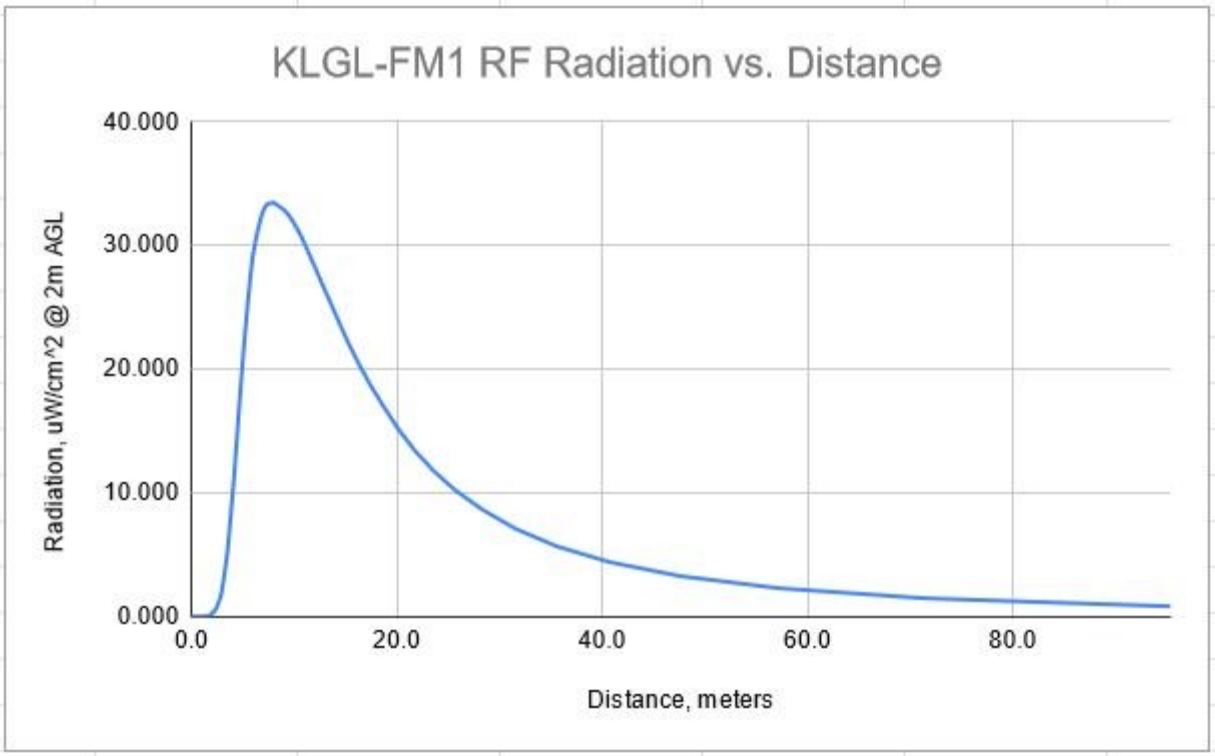
For these reasons, the applicant believes that a Commission grant of this application would not have a significant environmental impact.



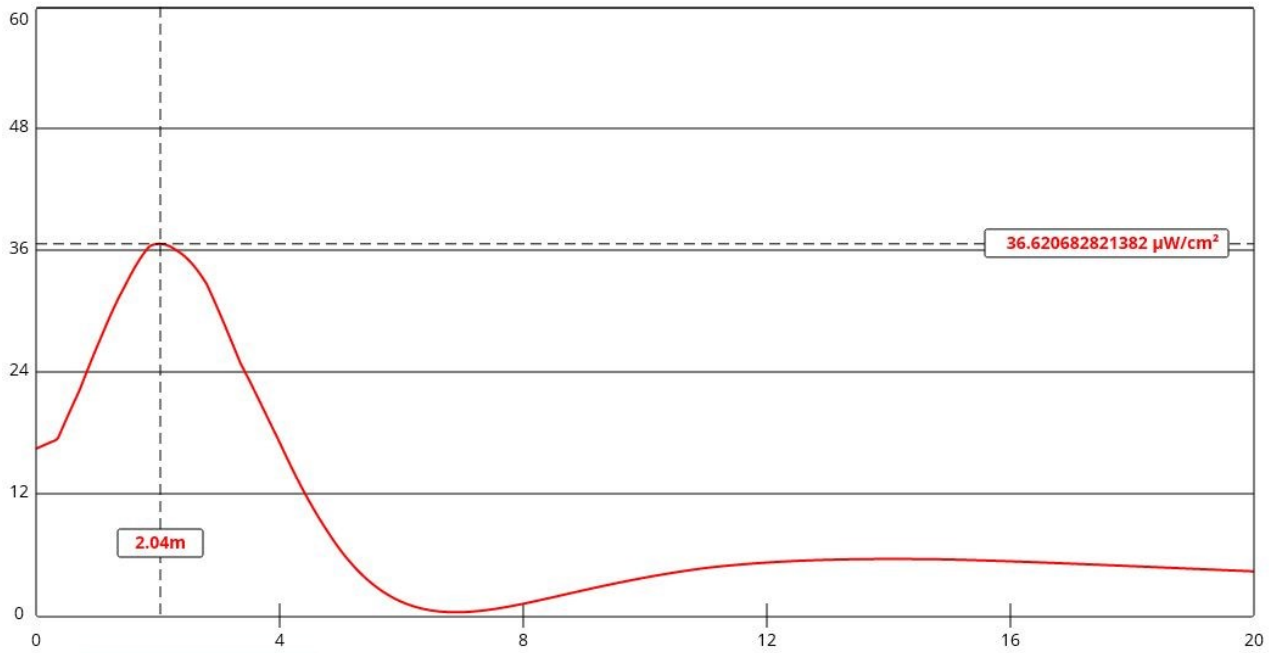
View Tabular Results +

Channel Selection	Channel 208 (89.5 MHz)		
Antenna Type +	EPA Type 2: Opposed V Dipole		
Height (m)	8	Distance (m)	20
ERP-H (W)	750	ERP-V (W)	750
Num of Elements	2	λ	1
Num of Points	500	Apply	

FM Model output for proposed facility



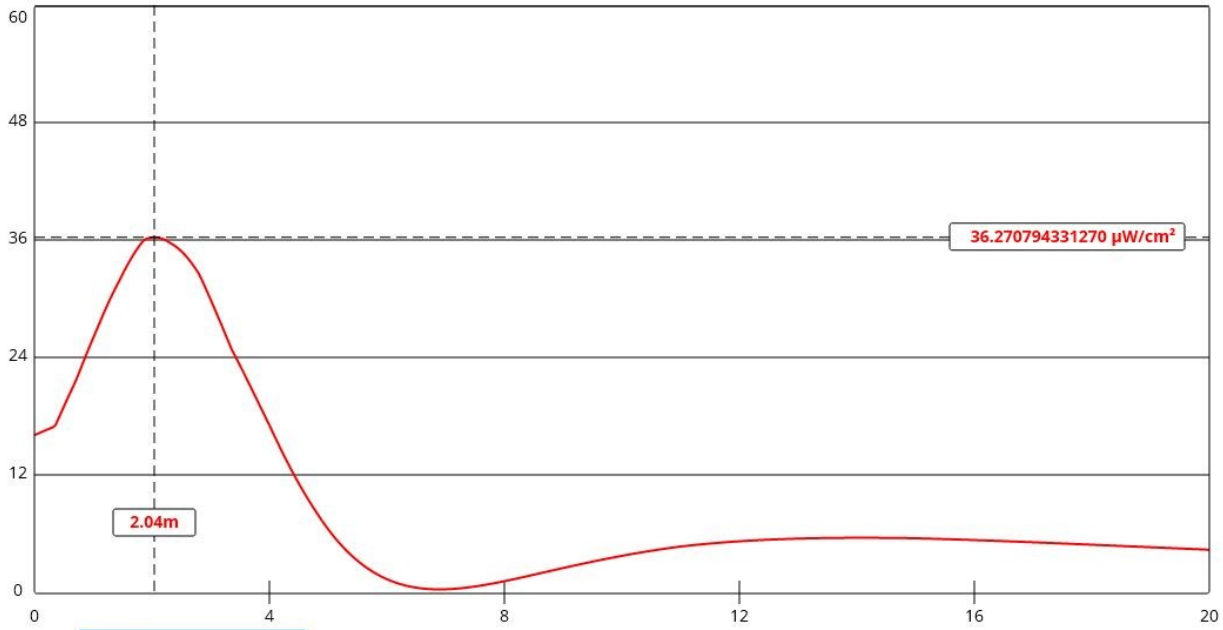
Maximum Radiation is 33.5μW/cm^2 at 8.0m from the tower base



View Tabular Results +

Channel Selection	Channel 251 (98.1 MHz)		
Antenna Type +	EPA Type 2: Opposed V Dipole		
Height (m)	6	Distance (m)	20
ERP-H (W)	41	ERP-V (W)	41
Num of Elements	2	λ	1
Num of Points	500	Apply	

FM Model output for K251BV



View Tabular Results +

Channel Selection	Channel 269 (101.7 MHz)		
Antenna Type +	EPA Type 2: Opposed V Dipole		
Height (m)	6	Distance (m)	20
ERP-H (W)	41	ERP-V (W)	41
Num of Elements	2	λ	1
Num of Points	500	Apply	

FM Model output for K269GH